



## Functional Genomics Research Outsourcing Services

Our functional genomics research outsourcing services provide comprehensive solutions for understanding gene function, regulation, and interaction networks using advanced molecular biology and bioinformatics tools.

### Our Functional Genomics Research Capabilities

Our molecular biologists and bioinformaticians combine high-throughput sequencing, gene silencing, CRISPR editing, and transcriptomic analysis to uncover gene roles and regulatory pathways in health and disease.

### Types of Functional Genomics Research We Handle

- Whole Transcriptome Sequencing (RNA-Seq)
- Targeted Gene Expression Profiling
- Microarray-Based Gene Expression
- Single-Cell Transcriptomics
- Alternative Splicing Analysis
- Non-Coding RNA Function Studies
- RNA Interference (RNAi) Experiments
- CRISPR Knockout Screening
- Gene Knockdown Validation
- CRISPR Activation (CRISPRa) Studies
- CRISPR Interference (CRISPRi) Assays
- Reporter Gene Assays
- Functional Promoter Analysis
- Gene Regulatory Network Mapping
- Epigenetic Regulation Studies
- Chromatin Immunoprecipitation (ChIP)
- Pathway Activation/Inhibition Assays
- Protein-Protein Interaction Validation
- Gene Fusion Detection
- Transcription Factor Binding Site Prediction
- Functional Enrichment Analysis
- Gene Ontology (GO) Annotation
- KEGG Pathway Mapping

- Differential Expression Analysis
- Long Non-Coding RNA (lncRNA) Studies
- Small RNA (miRNA, siRNA) Profiling
- Custom Functional Genomics Pipelines
- Integration with Proteomics Data
- Regulatory-Ready Functional Reports
- Publication-Ready Figures and Data Files

## **Key Research Outsourcing Services Offered**

- RNA Isolation and Quality Control
- Library Preparation for RNA-Seq
- High-Throughput Sequencing
- Microarray Hybridization and Scanning
- siRNA and shRNA Design
- CRISPR sgRNA Design and Validation
- Gene Knockdown and Knockout Experiments
- Quantitative PCR Validation
- Chromatin Immunoprecipitation (ChIP)
- Pathway Enrichment Analysis
- Differential Expression Data Analysis
- Gene Network Visualization
- Epigenetic Mark Profiling
- Data QC and Normalization
- Bioinformatics Pipeline Development
- Integration with Other Omics Data
- Custom Database Creation
- Regulatory-Compliant Reporting
- Confidential Data Handling with NDA
- Regular Progress Updates
- Stakeholder Presentation Support
- Publication-Ready Figures and Reports
- Workshops on Functional Genomics Tools
- Training on Data Analysis Pipelines
- Post-Project Technical Support
- Grant Proposal Collaboration
- Patent Filing Support
- Compliance with GxP Standards
- Long-Term Research Partnerships
- Custom Functional Genomics Consulting

## **Why Choose Us for Functional Genomics Research**

## Outsourcing?

Our functional genomics experts deliver accurate, reproducible data and regulatory-ready reports that advance gene function studies, target discovery, and biomarker development.

## Industries & Sectors We Serve

- Biopharma and Drug Discovery Units
- Academic Genomics Research Labs
- Clinical Genomics Centers
- Plant and Animal Genomics Institutes
- Genetic Diagnostics Developers
- Regulatory and Compliance Agencies

## Customized Functional Genomics Solutions

We develop custom experimental designs, sequencing panels, and bioinformatics workflows tailored to your organism, tissue type, and research objectives.

## Quality Assurance & Regulatory Compliance

Our workflows follow ISO, CLIA, and GxP guidelines, delivering reproducible, audit-ready functional genomics data and comprehensive reports.

## Case Studies & Client Success Stories

Explore how our functional genomics services have advanced gene target validation, pathway elucidation, and personalized therapy development. References available upon request.

## How It Works: Our Research Outsourcing Process

1. **Requirement Gathering:** Define target genes, study endpoints, and deliverables.
2. **Proposal & Quotation:** Provide project plan, timeline, and cost estimate.
3. **Lab and Bioinformatics Execution:** Perform experiments, data QC, and analysis.
4. **Data Reporting:** Deliver validated results, functional maps, and compliance documents.
5. **Post-Project Support:** Offer data interpretation, follow-up analysis, and publication support.

## Frequently Asked Questions (FAQs)

**Q:** Can you design custom CRISPR assays?

**A:** Yes — we design and validate CRISPR guides for specific gene targets.

**Q:** Do you provide bioinformatics support?

**A:** Absolutely — we deliver pipeline development, data visualization, and statistical reports.

**Q:** How secure is genomic data?

**A:** NDAs, encrypted servers, and restricted lab access ensure complete data confidentiality.

## **Get Started / Request a Quote**

Contact us today to discuss your functional genomics research project and receive a custom plan, timeline, and cost estimate tailored to your study goals.

## **Contact Us**

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